What is claimed is:

1. A method for fabricating a laminated magnetic shield for an MR read head comprising:

providing a substrate;

forming on said substrate a layer of Al_2O_3 of thickness between 0.5 microns and 10.0 microns.

forming on said Al_2O_3 layer a first layer of ferromagnetic material;

forming on said first layer of ferromagnetic material a layer of ruthenium;

forming on said layer of ruthenium a second layer of ferromagnetic material;

forming on said second layer of ferromagnetic material a dielectric layer.

2. The method of claim 1 wherein the first layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

3. The method of claim 1 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

4. The method of claim 1 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

5. The method of claim 1 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

6. The method of claim 1 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

7. The method of claim 1 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

8. The method of claim 1 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

9. The method of claim 1 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

10. The method of claim 1 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

11. The method of claim 1 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

12. The method of claim 1 wherein the dielectric layer is a layer of Al_2O_3 deposited to a thickness between 200 angstroms and 1,000 angstroms.

13. A method for fabricating a laminated magnetic shield for an MR read head comprising:

providing a substrate;

forming on said substrate a first layer of ferromagnetic material;

forming on said first layer of ferromagnetic material a first layer of CoFe;

forming on said first layer of CoFe a layer of ruthenium (Ru);

forming on said layer of ruthenium a second layer of CoFe;

forming on said second layer of CoFe a second layer of ferromagnetic material;

forming on said second layer of ferromagnetic material a dielectric layer.

14. The method of claim 13 wherein the first layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

15. The method of claim 13 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

16. The method of claim 13 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

17. The method of claim 13 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

18. The method of claim 13 wherein the first layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

19. The method of claim 13 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

20. The method of claim 13 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

21. The method of claim 13 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

22. The method of claim 13 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

23. The method of claim 13 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

24. The method of claim 13 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

25. The method of claim 13 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.

26. A laminated magnetic shield for an MR read head comprising:

a substrate;

a layer of Al_2O_3 of thickness between 0.5 microns and 10 microns formed on said substrate;

a first layer of ferromagnetic material formed on said layer of Al_2O_3;

a layer of ruthenium formed on said first layer of ferromagnetic material;

a second layer of ferromagnetic material formed on said layer of ruthenium;

a dielectric layer formed on said second layer of ferromagnetic material.

27. The structure of claim 26 wherein the first layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

28. The structure of claim 26 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

29. The structure of claim 26 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

30. The structure of claim 26 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns microns.

31. The structure of claim 26 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

32. The structure of claim 26 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

33. The structure of claim 26 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

34. The structure of claim 26 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

35. The structure of claim 26 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

36. The structure of claim 26 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

37. The structure of claim 26 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.

38. A laminated magnetic shield for an MR read head comprising:

a substrate;

a first layer of ferromagnetic material formed on said substrate;

a first layer of CoFe formed on said first layer of ferromagnetic material;

a layer of ruthenium formed on said first layer of CoFe;

a second layer of CoFe formed on said layer of ruthenium;

a second layer of ferromagnetic material formed on said second layer of CoFe;

a dielectric layer formed on said second layer of ferromagnetic material.

39. The structure of claim 38 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

40. The structure of claim 38 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

41. The structure of claim 38 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

42. The structure of claim 38 wherein the first layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

43. The structure of claim 38 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

44. The structure of claim 38 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

45. The structure of claim 38 wherein the second layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

46. The structure of claim 38 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

47. The structure of claim 38 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

48. The structure of claim 38 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

49. The structure of claim 38 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

50. The structure of claim 41 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.

51. A magnetoresistive read head with laminated magnetic shields comprising:

a first laminated magnetic shield;

a magnetoresistive sensor element formed on said first laminated magnetic shield;

a second laminated magnetic shield formed on said magnetoresistive sensor element.

52. The structure of claim 51 wherein the first laminated magnetic shield comprises:

a substrate;

a layer of Al_2O_3 of thickness between 0.5 microns and 10 microns formed on said substrate;

a first layer of ferromagnetic material formed on said layer of Al_2O_3;

a layer of ruthenium formed on said first layer of ferromagnetic material;

a second layer of ferromagnetic material formed on said layer of ruthenium;

a dielectric layer formed on said second layer of ferromagnetic material.

53. The structure of claim 52 wherein the first layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

54. The structure of claim 52 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

55. The structure of claim 52 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

56. The structure of claim 52 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns microns.

57. The structure of claim 52 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

58. The structure of claim 52 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

59. The structure of claim 52 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

60. The structure of claim 52 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

61. The structure of claim 52 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

62. The structure of claim 52 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

63. The structure of claim 52 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.

64. The structure of claim 51 wherein the first laminated magnetic shield comprises:

a substrate;

a first layer of ferromagnetic material formed on said substrate;

a first layer of CoFe formed on said first layer of ferromagnetic material;

a layer of ruthenium formed on said first layer of CoFe;

a second layer of CoFe formed on said layer of ruthenium;

a second layer of ferromagnetic material formed on said second layer of CoFe;

a dielectric layer formed on said second layer of ferromagnetic material.

65. The structure of claim 64 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

66. The structure of claim 64 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

67. The structure of claim 64 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

68. The structure of claim 64 wherein the first layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

69. The structure of claim 64 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

70. The structure of claim 64 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

71. The structure of claim 64 wherein the second layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

72. The structure of claim 64 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

73. The structure of claim 64 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

74. The structure of claim 64 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

75. The structure of claim 64 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

76. The structure of claim 64 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.

77. The structure of claim 51 wherein the second laminated magnetic shield comprises:

a substrate;

a layer of Al_2O_3 of thickness between 0.5 microns and 10 microns formed on said substrate;

a first layer of ferromagnetic material formed on said layer of Al_2O_3;

a layer of ruthenium formed on said first layer of ferromagnetic material;

a second layer of ferromagnetic material formed on said layer of ruthenium;

a dielectric layer formed on said second layer of ferromagnetic material.

78. The structure of claim 77 wherein the first layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

79. The structure of claim 77 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

80. The structure of claim 77 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

81. The structure of claim 77 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns microns.

82. The structure of claim 77 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

83. The structure of claim 77 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

84. The structure of claim 77 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

85. The structure of claim 77 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

86. The structure of claim 77 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

87. The structure of claim 77 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

88. The structure of claim 77 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.

89. The structure of claim 51 wherein the second laminated magnetic shield comprises:

a substrate;

a first layer of ferromagnetic material formed on said substrate;

a first layer of CoFe formed on said first layer of ferromagnetic material;

a layer of ruthenium formed on said first layer of CoFe;

a second layer of CoFe formed on said layer of ruthenium;

a second layer of ferromagnetic material formed on said second layer of CoFe;

a dielectric layer formed on said second layer of ferromagnetic material.

90. The structure of claim 89 wherein the first layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

91. The structure of claim 89 wherein the first layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

92. The structure of claim 89 wherein the first layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

93. The structure of claim 89 wherein the first layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

94. The structure of claim 89 wherein the layer of ruthenium is of thickness between 6.0 angstroms and 10.0 angstroms.

95. The structure of claim 89 wherein the layer of ruthenium is of thickness between 2.0 angstroms and 4.0 angstroms.

96. The structure of claim 89 wherein the second layer of CoFe is of thickness between 20 angstroms and 50 angstroms.

97. The structure of claim 89 wherein the second layer of ferromagnetic material is a layer of NiFe of thickness between 0.5 microns and 2.0 microns.

98. The structure of claim 89 wherein the second layer of ferromagnetic material is a layer of CoFeNi of thickness between 0.5 microns and 2.0 microns.

99. The structure of claim 89 wherein the second layer of ferromagnetic material is a layer of FeAlSi of thickness between 0.5 microns and 2.0 microns.

100. The structure of claim 89 wherein the second layer of ferromagnetic material is a layer of CoZrNb of thickness between 0.5 microns and 2.0 microns.

101. The structure of claim 89 wherein the dielectric layer is a layer of Al_2O_3 of thickness between 200 angstroms and 1,000 angstroms.